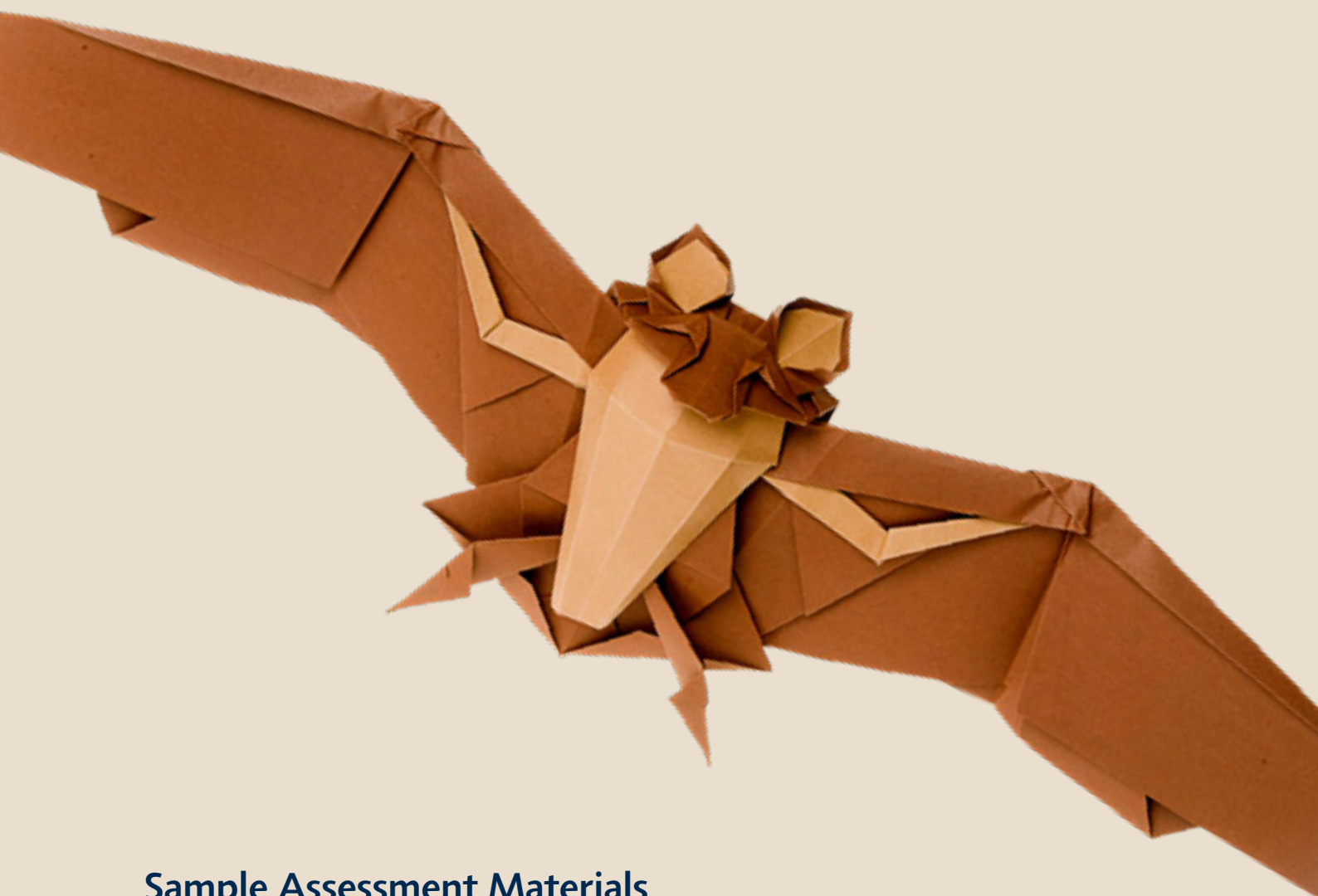


AS Music Technology



Sample Assessment Materials

Pearson Edexcel Level 3 Advanced Subsidiary GCE in Music Technology (8MT0)

First teaching from September 2017

First certification from 2018

Issue 3

Edexcel, BTEC and LCCI qualifications

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All information in this document is correct at the time of publication.

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Origami photography: Pearson Education Ltd/Naki Kouyioumtzis

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Summary of Pearson Edexcel Level 3 Advanced Subsidiary GCE in Music Technology SAMs

Issue 3 changes

Summary of changes made between previous issue and this current issue	Page number
The following changes have been made to Component 1: Recording (8MT0/01)	
'Recordings must be submitted digitally in the format detailed in the administrative support guide found on the Pearson website, along with the logbook and authentication form.' to 'Recordings must be submitted via the online submission platform Learner Work Transfer (LWT), along with the logbook and authentication form.'	5
'Centres are reminded that recordings must be submitted digitally in the format detailed in the administrative support guide found on the Pearson website.' to 'Centres are reminded that recordings must be submitted via the online submission platform LWT.'	9
The following changes have been made to Component 2: Composing (8MT0/02)	
'Recordings of the technology-based compositions must be submitted digitally in the format detailed in the administrative support guide which can be found on the Pearson website, along with the logbook and authentication form.' to 'Recordings of the technology-based compositions must be submitted via the online submission platform LWT, along with the logbook and authentication form.'	21
'Centres are reminded that recordings of technology-based compositions must be submitted digitally in the format detailed in the administrative support guide found on the Pearson website.' to 'Centres are reminded that recordings of technology-based compositions must be submitted via the online submission platform LWT.'	23

Earlier issue 2 shows previous changes.

If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

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Introduction

The Pearson Edexcel Level 3 Advanced Subsidiary GCE in Music Technology is designed for use in schools and colleges. It is part of a suite of GCE Level qualifications offered by Pearson.

These sample assessment materials have been developed to support this qualification and will be used as the benchmark to develop the assessment students will take.

General marking guidance

- All candidates must receive the same treatment. Examiners must mark the last candidate in exactly the same way as they mark the first.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than be penalised for omissions.
- Examiners should mark according to the mark scheme – not according to their perception of where the grade boundaries may lie.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification/indicative content will not be exhaustive. However different examples of responses will be provided at standardisation.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, a senior examiner must be consulted before a mark is given.
- Crossed-out work should be marked **unless** the candidate has replaced it with an alternative response.

Marking guidance for levels based mark schemes

How to award marks

The indicative content provides examples of how students will meet each skill assessed in the question. The levels descriptors and indicative content reflect the relative weighting of each skill within each mark level.

Finding the right level

The first stage is to decide which level the answer should be placed in. To do this, use a 'best-fit' approach, deciding which level most closely describes the quality of the answer. Answers can display characteristics from more than one level, and where this happens markers must use the guidance below and their professional judgement to decide which level is most appropriate.

Placing a mark within a level

After a level has been decided on, the next stage is to decide on the mark within the level. The instructions below tell you how to reward responses within a level. However, where a level has specific guidance about how to place an answer within a level, always follow that guidance. Statements relating to the treatment of students who do not fully meet the requirements of the question are also shown in the indicative content section of each levels based mark scheme. These statements should be considered alongside the levels descriptors.

Markers should be prepared to use the full range of marks available in a level and not restrict marks to the middle. Markers should start at the middle of the level (or the upper-middle mark if there is an even number of marks) and then move the mark up or down to find the best mark. To do this, they should take into account how far the answer meets the requirements of the level:

- if it meets the requirements fully, markers should be prepared to award full marks within the level. The top mark in the level is used for answers that are as good as can realistically be expected within that level
- if it only barely meets the requirements of the level, markers should consider awarding marks at the bottom of the level. The bottom mark in the level is used for answers that are the weakest that can be expected within that level
- the middle marks of the level are used for answers that have a reasonable match to the descriptor. This might represent a balance between some characteristics of the level that are fully met and others that are only barely met.

Pearson Edexcel Level 3 GCE

Music Technology

Advanced Subsidiary Component 1: Recording

Sample assessment material for first teaching
September 2017
Task

Paper Reference
8MT0/01

You do not need any other materials.

Instructions for Teachers

- This task must not be released before 1 June in the calendar year preceding the year in which the qualification is to be awarded.
- Recordings must be submitted via the online submission platform Learner Work Transfer (LWT), along with the logbook and authentication form.
- Centres are reminded that each candidate submission must be presented separately and this must be clearly marked with the paper reference, centre number, candidate name and candidate number.
- Centres must retain backup copies of all candidate recordings and proprietary software files for all tasks.
- All assessment materials must be sent to the examiner to arrive by 15 May.

Information for Candidates

- The total mark for this component is 60.
- This document outlines the task for the recording.
- The recording must last between 2 and 2½ minutes.
- You must fulfil the instrumentation requirements.
- You must record one song from the list of 10 songs.

Turn over ►

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Recording Task

Produce a stereo mix of a song from the list of 10 songs that meets the instrumental requirements listed below.

Your recording must demonstrate competencies in capture of sound and use of EQ, dynamic processing, effects, stereo, balance and blend.

Your recording must last between 2 and 2½ minutes.

Your recording must meet the following instrumentation requirements:

Instrumentation requirements	
Compulsory audio instruments	Additional audio instruments
You must record all the instruments in this list.	You must record at least two different instruments from this list.
They each must be played for a total of at least 1½ minutes	They each must be played for a total of at least 45 seconds.
Acoustic guitar	Acoustic melody instrument
Bass guitar or double bass	Electric guitar
Lead vocal	Keyboard
	Backing vocal
Additional instances of any of the instruments listed above may be used in the recording, if appropriate to the instrumentation of the chosen song, e.g. additional guitar and/or keyboard part.	
Drum kit and additional unpitched percussion instruments (including electronic percussion) must not be included in the recording. These will mask the other instruments and as a result, full credit will not be awarded.	
You may capture keyboard instruments using microphones, DI, or plug-in virtual instruments. It is not acceptable to use plug-in virtual instruments to replace any of the non-keyboard instruments; this includes any virtual instrument player software.	

List of 10 Songs

You must choose one song from the following list

Joan Armatrading – *Love and Affection*
Dixie Chicks – *Travellin' Soldier*
Simon and Garfunkel – *The Boxer*
K.T. Tunstall – *Fade like a Shadow*
Poison – *Every Rose Has Its Thorn*
Tracy Chapman – *Talkin' bout a Revolution*
The Doors – *Love Her Madly*
Neil Young – *Heart of Gold*
Sister Hazel – *Truth is*
Taylor Swift – *Everything has Changed*

If the chosen song is longer than 2½ minutes, you should fade or finish it within the given timeframe by omitting, for example, a verse, chorus or middle eight.

You must:

- ensure the recording is free from distortion and noise
- use contemporary production techniques for stereo
- use EQ that reflects contemporary standards of clarity.

You may use any of the following techniques as appropriate:

- drop-ins/overdubs
- double tracking
- compiling complete performances from several takes
- sequencing of virtual instruments or live recording to capture keyboards
- editing of timing or pitch.

You may:

- replicate the instrumentation as performed on the original stimulus or adapt the performances to suit your chosen instruments
- adapt the song to fade or finish after 2 and before 2½ minutes.

You must not use looping techniques to construct tracks from short sections of audio or MIDI. However, it is acceptable to correct occasional performance mistakes using short sections of audio from elsewhere in the song.

You must be in sole charge of the recording process from capture of audio to mixdown. Sharing of audio files between candidates is not permitted.

You must submit your recording digitally in the format detailed in the administrative support guide, found on the Pearson website.

Pearson Edexcel Level 3 GCE

Music Technology

Advanced Subsidiary Component 1: Recording

Sample assessment material for first teaching
September 2017

Logbook and authentication form

Paper Reference

8MT0/01

You do not need any other materials.

Instructions for Teachers

- The logbook and authentication form must be completed and presented for assessment along with the recording.
- Centres are reminded that recordings must be submitted via the online submission platform LWT.
- Centres must retain backup copies of all candidate recordings and proprietary software files for all tasks.
- All assessment materials must be sent to the examiner to arrive by 15 May.

Information for Candidates

- The total mark for this component is 60.
- Use **black** ink or ball-point pen.
- Answer the sections in the spaces provided
– *there may be more space than you need.*
- The sections in this booklet ask you for information which is essential for the examiner who assesses your work.
- If you do not complete the logbook and authentication form, your work may not be fully credited.
- It is not necessary to supply additional material such as screenshots.

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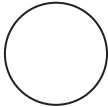
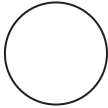
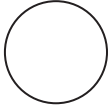
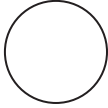
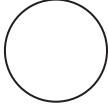
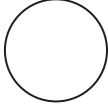
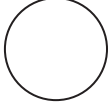
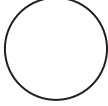
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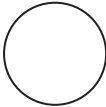
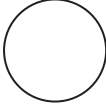
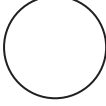
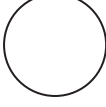
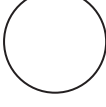
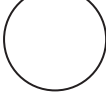
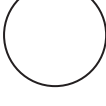
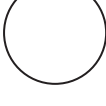
Complete the instrument listing below to show the instruments you have recorded and the microphone type, DI, or other capture method used.

Track listing		
Compulsory audio instruments	Capture method	Playing time
Acoustic guitar		
Lead vocal		
Bass guitar or double bass		
Additional audio instruments	Capture method	Playing time
Acoustic melody instrument		
Backing vocal		
Keyboard		
Electric guitar		
Other instruments	Capture method	Playing time

In the space provided, draw labelled diagrams to show your microphone positioning and choices. You must include details of position, mic type and any adjustable mic settings used, for all of the compulsory instruments. You may use photos if preferred but they must be clearly annotated.

Complete the track sheet below to illustrate your mix and processing decisions. You may attach screenshots but they must be presented to clearly show settings and parameters.

	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7	Track 8
Instrument/ Voice								
EQ								
FX								
Dynamic processing								
Panning (L-R)								
Level								

	Track 9	Track 10	Track 11	Track 12	Track 13	Track 14	Track 15	Track 16
Instrument/ Voice								
EQ								
FX								
Dynamic processing								
Panning (L-R)								
Level								

Teacher declaration

I declare that the work submitted for assessment has been carried out without assistance other than that which is acceptable according to the rules of the specification.

Teacher name:			
Teacher signed:		Date:	

Candidate declaration

I certify that the work submitted for this assessment is my own. I have clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.

Candidate signed:		Date:	
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By signing the above declaration you agree to your work being used to support professional development, online support and training of both centre-assessors and Pearson examiners. If you have any concerns please email: teachingmusic@pearson.com

If you do not wish for your work to be used by Pearson to support training and development, please tick here ☐.

Please present this completed form with the student's submission.

Component 1: Recording – marking instructions

The overall length of the recording must be 2–2½ minutes.

Under length recordings

Mark the recording as normal using the grids below.

If the recording is under-length the mark will be reduced proportionally according to the percentage that the recording is under length, using the formula below.

Length of recording in seconds ÷ 120 seconds (minimum time allowed) x original mark = adjusted mark.

For example: a 90 second composition with an original mark of 35 marks:

90 seconds ÷ 120 seconds x 35 marks = 26.25 marks

The mark awarded = **26**

Decimals will be rounded to the nearest whole number (if the number after the decimal point is 5 or more, it is rounded up to the nearest whole number).

Over length recordings

Mark the recording as normal using the grids below.

If the recording is over length mark above level 2 cannot be achieved for assessment grid 7 (production).

Other instructions

Mark the recording as normal using the grids below

If the recording contains drum kit and/or additional unpitched percussion instruments (including electronic percussion), a mark of 0 must be applied to assessment grid 5 (balance and blend) and assessment grid 7 (production).

If timing of instrument(s) appears to be inaccurate, please check, by timing the appropriate instrument(s).

If the timing does not meet the minimum playing time requirement, a mark above level 2 cannot be achieved for assessment grid 5 (balance and blend).

Recording assessment grids

In the case of assessment grids 1–4, marks are awarded in the three categories shown below:

- acoustic guitar
- lead vocal
- other parts as required by the task, and handling across entire mix.

In the case of assessment grids 5–7, marks are awarded for all tracks in the mix.

Total marks 60.

Assessment grid 1

	Acoustic guitar	Lead vocal	Other parts	Capture Use of microphones and DI to capture live performance
Level	Mark	Mark	Mark	
	0	0	0	No rewardable material; no live capture using microphones or DI.
Level 1	1	1	1	Limited success of capture; misjudgements detract from the clarity throughout.
Level 2	2	2	2	Inconsistent capture; misjudgements occasionally detract from clarity.
Level 3	3	3	3	Competent capture; misjudgements do not impact significantly on clarity.
Level 4	4	4	4	Excellent capture throughout.
	TOTAL for Capture – 12 marks			

Assessment grid 2

	Acoustic guitar	Lead vocal	Other parts	Editing – processing EQ (acoustic guitar, vocal, other parts) Assessment of other parts must also consider distribution of frequencies across entire mix
Level	Mark	Mark	Mark	
	0	0	0	No rewardable material, including extreme uncontrolled variation in EQ in a number of places.
Level 1	1	1	1	Limited success in shaping EQ; misjudgements detract from the overall mix throughout.
Level 2	2	2	2	Inconsistent shaping of EQ; misjudgements occasionally detract from the overall mix.
Level 3	3	3	3	Competent shaping of EQ; misjudgements do not impact significantly on the overall mix.
Level 4	4	4	4	Excellent shaping of EQ throughout.
	TOTAL for Processing EQ – 12 marks			

Assessment grid 3

	Acoustic guitar	Lead vocal	Other parts	Editing – dynamic processing (acoustic guitar, vocal and other parts) Assessment of other parts must also consider management of dynamics across the entire mix
Level	Mark	Mark	Mark	
	0	0	0	No rewardable material, including extreme uncontrolled variation in dynamics in a number of places.
Level 1	1	1	1	Limited success in management of dynamics; misjudgements detract from the overall mix throughout.
Level 2	2	2	2	Inconsistent management of dynamics; misjudgements occasionally detract from the overall mix.
Level 3	3	3	3	Competent management of dynamics; misjudgements do not impact significantly on the overall mix.
Level 4	4	4	4	Excellent management of dynamics throughout.
TOTAL for Processing Dynamics – 12 marks				

Assessment grid 4

	Acoustic guitar	Lead vocal	Other parts	Editing – use of effects, including ambience (acoustic guitar, vocal, other parts) Assessment of other parts must also consider distribution of effects across entire mix
Level	Mark	Mark	Mark	
	0	0	0	No rewardable material, including extreme misjudgements in effects use in most parts.
Level 1	1	1	1	Limited success in use of effects; misjudgements detract from the overall mix throughout.
Level 2	2	2	2	Inconsistent use of effects; misjudgements occasionally detract from the success of the overall mix.
Level 3	3	3	3	Competent use of effects; misjudgements do not impact significantly on the overall mix.
Level 4	4	4	4	Excellent use of effects throughout.
TOTAL for Processing Effects – 12 marks				

Assessment grid 5

Marking instructions

No higher than level 2 will be awarded if any instrument does not meet the minimum playing time.

0 marks will be awarded if drum kit and/or unpitched percussion instruments (including electronic percussion) are present

Level	Mark	Production – balance and blend
	0	No rewardable material, including extreme misjudgements in balance and blend in most parts; parts missing or inaudible.
Level 1	1	Limited success with balance and blend; misjudgements detract from the overall mix.
Level 2	2	Inconsistent balance and blend; misjudgements occasionally detract from the overall mix.
Level 3	3	Competent balance and blend; misjudgements do not impact significantly on the overall mix.
Level 4	4	Excellent balance and blend throughout.

Assessment grid 6

Level	Mark	Production – use of stereo
	0	No rewardable material, including completely mono submission or only one channel present.
Level 1	1	Limited success in use of stereo; misjudgements detract from the overall mix throughout.
Level 2	2	Inconsistent use of stereo; misjudgements occasionally detract from the success of the overall mix.
Level 3	3	Competent use of stereo; misjudgements do not impact significantly on the overall mix.
Level 4	4	Excellent use of stereo throughout.

Assessment grid 7

Marking instructions

No higher than level 2 will be awarded if the student submission is longer than the required maximum length.

0 marks will be awarded if drum kit and/or unpitched percussion instruments (including electronic percussion) are present.

Level	Mark	Production – management of noise, distortion, master level and audio editing (including compiling, pitch correction, handling of fades, top and tail)
	0	No rewardable material.
Level 1	1	Limited success in management of noise, distortion, master level and audio editing; misjudgements detract from the overall mix.
Level 2	2	Inconsistent management of noise, distortion, master level and audio editing; misjudgements occasionally detract from the overall mix.
Level 3	3	Competent management of noise, distortion, master level and audio editing; misjudgements do not impact significantly on the overall mix.
Level 4	4	Excellent management of noise, distortion, master level and audio editing throughout.

Pearson Edexcel Level 3 GCE

Music Technology

Advanced Subsidiary

Component 2: Technology-based composition

Sample assessment material for first teaching
September 2017
Brief

Paper Reference
8MT0/02

You must have:
Two audio samples

Instructions for Teachers

- This brief must not be released before 1 September in the calendar year preceding the year in which the qualification is to be awarded.
- Recordings of the technology-based compositions must be submitted via the online submission platform LWT, along with the logbook and authentication form.
- Centres are reminded that each candidate submission must be presented separately and this must be clearly marked with the paper reference, centre number, candidate name and candidate number.
- Centres must retain backup copies of all candidate technology-based compositions and proprietary software files for all tasks.
- All assessment materials must be sent to the examiner to arrive by 15 May.

Information for Candidates

- The total mark for this component is 60.
- This document outlines the task for the technology-based composition.
- The technology-based composition must be 2½ minutes long.
- You must fulfil the requirement for the number of vocal, instrumental, sample-based parts.

Turn over ►

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Technology-based composition

Create a composition based on the following brief.

You have been provided with two samples of recorded vocals. Use both of these to develop a composition in any style.

Both of the samples must appear at least once in their entirety in your composition.

You must manipulate the samples using audio editing techniques, effects and processing.

The technology-based composition must contain at least **six** separate vocal, instrumental, sample-based parts.

You must use the following sound design methods in creating your instrumental parts:

- synthesis
- sampling/audio manipulation
- creative effects
- automation and real-time control.

In addition, you may also use any combination of:

- MIDI-controlled virtual instruments
- live recorded audio.

Samples and loops must be manipulated in order to gain credit.

Your logbook must detail the original sound design you have done using synthesis, sampling and creative effects. Any samples that you have used should be credited in your logbook with details of any processing, and the source of the samples (whether they are from a commercial set or are self-recorded).

You must produce a high quality stereo recording of your technology-based composition that pays attention to all aspects of production – capture, balance, blend, EQ, dynamics, stereo field and effects.

Your composition must be 2½ minutes long.

You must submit your recording digitally in the format detailed in the administrative support guide, found on the Pearson website.

Pearson Edexcel Level 3 GCE

Music Technology

Advanced Subsidiary

Component 2: Technology-based composition

Sample assessment material for first teaching
September 2017

Logbook and authentication form

Paper Reference

8MT0/02

You do not need any other materials.

Instructions for Teachers

- The logbook and authentication form must be completed and presented for assessment along with the Technology-based composition.
- Centres are reminded that recordings of technology-based compositions must be submitted via the online submission platform LWT.
- Centres must retain backup copies of all candidate recordings and proprietary software files for all tasks.
- All assessment materials must be sent to the examiner to arrive by 15 May.

Information for Candidates

- The total mark for this component is 60.
- Use **black** ink or ball-point pen.
- Answer the sections in the spaces provided
– *there may be more space than you need.*
- The sections in this booklet ask you for information which is essential for the examiner who assesses your work.
- If you do not complete the logbook and authentication form, your work may not be fully credited.
- It is not necessary to supply additional material.

Turn over ►

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Pearson

Title of Your Composition

Complete the following information about your working methods

DAW

Use the following tables to detail how you have created sounds for your Technology-based Composition.

You must also clearly indicate what settings you have changed in order for your work to gain credit. You may use diagrams or labelled screen shots to explain your sound design, but these alone will not be sufficient to explain your processes.

Synthesis	
Timbre/instrument name	designing sounds; manipulation using LFO, filter, envelopes; automation or real time control

Sampling

**Timbre/instrument
name**

**using short audio files to develop new sonic elements; pitch-mapping,
cutting/trimming, looping. Include manipulation of stimulus samples**

Creative Effects

**Timbre/instrument
name**

**adding time-based effects or processors to modify existing sounds;
control of core parameters**

Teacher declaration

I declare that the work submitted for assessment has been carried out without assistance other than that which is acceptable according to the rules of the specification.

Teacher name:			
Teacher signed:		Date:	

Candidate declaration

I certify that the work submitted for this assessment is my own. I have clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.

Candidate signed:		Date:	
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By signing the above declaration you agree to your work being used to support professional development, online support and training of both centre-assessors and Pearson examiners. If you have any concerns please email: teachingmusic@pearson.com

If you do not wish for your work to be used by Pearson to support training and development, please tick here ☐.

Please present this completed form with the student's submission.

Component 2: Technology-based composition – marking instructions

The overall length of the technology-based composition must be 2½ minutes.

Under length

Mark the composition as normal using the grids below.

If the composition is under-length the mark will be reduced proportionally according to the percentage that the composition is under length, using the formula below.

Length of composition in seconds ÷ 150 seconds (minimum time allowed) x original mark = adjusted mark.

For example: a 120 second composition with an original mark of 40 marks:

120 seconds ÷ 150 seconds x 40 marks = 32 marks

The mark awarded = **32**

Decimals will be rounded to the nearest whole number (if the number after the decimal point is 5 or more, it is rounded up to the nearest whole number).

Over length

Mark the composition as normal using the grids below.

If the composition is over length a mark above level 2 cannot be achieved in assessment grid 5 (response to brief).

Technology-based composition assessment grids

The use of technology and the structural elements of the composition must be clearly audible in the submitted recording to gain credit.

Total marks 60.

Assessment grid 1

Synthesis – designing own sounds, and manipulating using automation or real-time control of LFO, filter, envelopes.

Level	Mark	Create and edit sounds – synthesis
	0	No rewardable material.
Level 1	1–2	- Limited use of synthesis techniques. - Synthesis use is ineffective and does not make a significant contribution to the piece overall.
Level 2	3–4	- Inconsistent use of synthesis techniques. - Use of synthesis is evident but with some misjudgements.
Level 3	5–6	- Competent use of a range of synthesis techniques. - Use of synthesis is evident and makes a positive contribution to the piece overall.
Level 4	7–8	- Excellent use of a range of synthesis techniques throughout. - Synthesis has been used creatively with a high level of skill and control to develop an original sonic palette.

Assessment grid 2

Sampling – using short audio files to develop new sonic elements, including manipulation of stimulus samples; pitch-mapping, cutting/trimming, looping.

Level	Mark	Create and edit sounds – sampling
	0	No rewardable material.
Level 1	1–2	- Limited use of sampling techniques. - Sample use is ineffective and does not make a significant contribution to the piece overall.
Level 2	3–4	- Inconsistent use of sampling techniques. - Sample use is evident but with some misjudgements.
Level 3	5–6	- Competent use of a range of sampling techniques. - Sample use is evident and makes a positive contribution to the piece overall.
Level 4	7–8	- Excellent use of a range of sampling techniques throughout. - Samples have been used creatively with a high level of skill and control to develop an original sonic palette.

Assessment grid 3

Creative effects – adding time-based effects or processors to modify existing sounds; control of core parameters.

Level	Mark	Create and edit sounds – creative effects
	0	No rewardable material.
Level 1	1–2	- Limited use of creative effects techniques. - Creative effects use is ineffective and does not make a significant contribution to the piece overall.
Level 2	3–4	- Inconsistent use of creative effects techniques. - Creative effects use is evident but with some misjudgements.
Level 3	5–6	- Competent use of a range of creative effects techniques. - Creative effects use is evident and makes a positive contribution to the piece overall.
Level 4	7–8	- Excellent use of a range of creative effects techniques throughout. - Creative effects have been used imaginatively with a high level of skill and control to develop an original sonic palette.

Assessment grid 4

Editing of mix must consider processing and balance to include stereo, EQ, dynamics, mix effects, master level, top and tail.

Level	Mark	Create and edit sounds Editing of mix – control of processing and balance
	0	No rewardable material. Parts missing or inaudible.
Level 1	1–2	- Unconvincing editing of mix. - Handling of processing and balance is limited.
Level 2	3–4	- Generally convincing editing of mix. - Handling of processing and balance is mostly successful.
Level 3	5–6	- Excellent editing of mix. - All aspects of processing and balance are handled successfully throughout.

Assessment grid 5

Marking instructions

No higher than level 2 will be awarded if the submission is longer than the required length
0 marks will be awarded if the composition samples are not used.

Level	Mark	Structure sounds Response to brief – sonic and musical ideas combined to reflect the requirements of the brief
	0	No rewardable material.
Level 1	1–2	• Unconvincing combination of sonic and musical ideas. • Sonic and musical ideas are limited in meeting the requirements of the brief.
Level 2	3–4	• Generally convincing combination of sonic and musical ideas. • Sonic and musical ideas meet mostly the requirements of the brief.
Level 3	5–6	• Excellent combination of sonic and musical ideas. • All aspects of the brief are successfully reflected throughout.

Assessment grid 6

Level	Mark	Structure sounds Style and coherence – use of stylistic conventions and control of flow and direction of ideas
	0	No rewardable material.
Level 1	1–2	• Unconvincing flow and direction to the piece. • Use of stylistic conventions is limited.
Level 2	3–4	• Generally convincing flow and direction to the piece. • Use of stylistic conventions is mostly successful.
Level 3	5–6	• Excellent flow and direction to the piece. • Stylistic conventions are used successfully throughout.

For the following five assessment grids, all will be assessed but only the three highest marks will be used to calculate the total.

Assessment grid 7

Level	Mark	Structure sounds – melody
	0	No rewardable material.
Level 1	1–2	- Limited or repetitive melodic ideas. - Melodies are underdeveloped and lack shape, fluency and direction.
Level 2	3–4	- Melodic ideas are developed in some places. - Melodies are generally effective but may lack shape, fluency or direction.
Level 3	5–6	- Consistent development of melodic ideas throughout. - Melodies have shape, fluency and a sense of direction.

Assessment grid 8

Level	Mark	Structure sounds – harmony
	0	No rewardable material.
Level 1	1–2	- Limited or misjudged harmonic ideas. - Harmonies are underdeveloped and lack variety.
Level 2	3–4	- Harmonic ideas are mostly suitable. - Harmonies are functional and show some development.
Level 3	5–6	- Harmonic ideas are imaginative. - Harmony is well handled throughout with variety and development.

Assessment grid 9

Level	Mark	Structure sounds – rhythm
	0	No rewardable material.
Level 1	1–2	- Limited or repetitive rhythmic ideas. - Rhythms are underdeveloped and lack shape, fluency and direction.
Level 2	3–4	- Rhythmic ideas are developed in some places. - Rhythms are generally effective but may lack shape, fluency or direction.
Level 3	5–6	- Consistent development of rhythmic ideas throughout. - Rhythms have shape, fluency and a sense of direction.

Assessment grid 10

Level	Mark	Structure sounds – texture
	0	No rewardable material.
Level 1	1–2	- Limited or misjudged use of texture. - Texture is underdeveloped and lacks variety.
Level 2	3–4	- Use of texture is mostly suitable. - Texture is functional and shows some development.
Level 3	5–6	- Use of texture is imaginative. - Texture is well handled throughout with variety and development.

Assessment grid 11

Level	Mark	Structure sounds – form and structure
	0	No rewardable material.
Level 1	1–2	- Limited or repetitive structural ideas. - Structure is underdeveloped and lacks variety.
Level 2	3–4	- Structural ideas are mostly suitable. - Structure is functional and shows some development.
Level 3	5–6	- Structural ideas are imaginative. - Structure is well handled throughout with variety and development.

Write your name here

Surname

Other names

Pearson Edexcel
Level 3 GCE

Centre Number

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Candidate Number

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Music Technology

Advanced Subsidiary

Component 3: Listening and analysing

Sample assessment material for first teaching
September 2017

Time: 1 hour 15 minutes

Paper Reference

8MT0/03

You must have:

Audio recording

Headphones and individual audio player.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Access to music production software or the Internet is not permitted.

Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Pearson

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Carl Perkins: *Blue Suede Shoes* Track 1

(a) There is delay on the vocal.

(i) Identify the type of delay. Put a cross in the correct box.

(1)

- ☐ Flange
- ☐ Multi-tap
- ☐ Ping pong
- ☐ Slapback

(ii) State how many taps the delay has.

(1)

(iii) Identify the technology used to create the delay. Put a cross in the correct box.

(1)

- ☐ Analogue tape
- ☐ Rotary speaker cabinet
- ☐ Delay pedal
- ☐ Plug-in

(b) This recording features a solid body electric guitar. State **one** benefit of using a solid body electric guitar for the recording instead of earlier designs.

(1)

(c) Identify **two** characteristics of the drum recording quality.

(2)

1

2

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

- (d) There are a number of technical problems with the vocal recording. In the table below, identify **two** of these problems. For each problem give one way it would be overcome if recording with more modern equipment.

Problem	How the problem would be overcome with more modern equipment
(1)	(1)
(1)	(1)

(Total for Question 1 = 10 marks)

2 Laura Mvula: *Green Garden* Track 2

(a) The instrument that plays from the start of the track uses a looped sample.

(i) Identify **one** characteristic that suggests it is a looped sample.

(1)

(ii) When looping this sample, give **one** technique the producer would use to ensure that there were no audible clicks.

(1)

(b) Identify **one** track in the mix that has distortion applied to it.

(1)

(c) Complete the following sentence.

(1)

A pass filter has been used to EQ the bass track that plays from 1:01.

(d) Identify the effect applied to the backing vocals at 0:25–0:33.

(1)

(e) Describe the use of stereo field in the vocal tracks.

(3)

- (f) Identify **two** techniques the producer has used to create a change of atmosphere during 2:32–2:50.

(2)

1

2

(Total for Question 2 = 10 marks)

3 Earth, Wind & Fire (with The Emotions): *Boogie Wonderland*
Track 3

- (a) The rhythm section was recorded live in one take. Give **two** methods that a producer would use to reduce spill in this situation.

(2)

- 1
- 2

- (b) Compare the vocal production heard between 0:16–0:31 with the vocal production heard between 0:31–0:46.

(4)

-
-
-
-
-
-

- (c) Explain **two** ways the mix maintains clarity despite the complexity of the arrangement.

(4)

- 1
-
- 2
-
-

(Total for Question 3 = 10 marks)

4 Alanis Morissette: *Ironic* Track 4

(a) Identify the modulation effect on the electric guitar in the section 2:18–2:39.

(1)

(b) Drum sequencing has been used in this recording. Identify **three** characteristics of the drum part that support this statement.

(3)

1

2

3

(c) This song was recorded on an ADAT multitrack tape. Give **four** benefits of recording with an ADAT multitrack tape rather than an analogue tape.

(4)

1

2

3

4

(d) Describe how the vocal production changes during the first verse and chorus between 0:00–1:01.

(6)

(Total for Question 4 = 14 marks)

TOTAL FOR SECTION A = 44 MARKS

SECTION B

Answer Question 5. Write your answers in the spaces provided.

- 5 Nina Simone: *Feeling Good* (Album Version)**
Track 5

Muse: *Feeling Good*
Track 6

Compare the production techniques used in both versions of the song.

(16)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 5 = 16 marks)

TOTAL FOR SECTION B = 16 MARKS

TOTAL FOR PAPER = 60 MARKS

Component 3: Listening and analysing – mark scheme

Carl Perkins: *Blue Suede Shoes*

Question number	Answer	Mark
1(a)(i)	Slapback.	(1)

Question number	Answer	Mark
1(a)(ii)	One.	(1)

Question number	Answer	Mark
1(a)(iii)	Analogue tape.	(1)

Question number	Answer	Mark
1(b)	Any one of the following: - no feedback (1) - turn up louder for clarity in the mix (1) - harsher sound cuts through mix (1) - increased sustain (1).	(1)

Question number	Answer	Mark
1(c)	Any two of the following: - mono (1) - restricted frequency response (1) - sounds distant (1).	(2)

Question number	Answer	Mark										
1(d)	To gain credit for the solution it must match the problem. 2 marks for problem and 2 marks for solution	(4)										
	<table><tr><th>Problem (any two of the following)</th><th>How the problem would be overcome with more modern equipment</th></tr><tr><td> • Plosives (1) </td><td> • Pop shield (1) • Low pass filter (1) • Zoom in and trim (1) • waveform/apply fade (1) </td></tr><tr><td> • Distortion (1) </td><td> • Turn down gain (1) • Compression (1) • Use pad on mic (1) </td></tr><tr><td> • Wide dynamic range (1) </td><td> • Compression (1) • Volume automation (1) </td></tr><tr><td> • Limited frequency response (1) </td><td> • Condenser mic (1) • EQ (1) </td></tr></table>		Problem (any two of the following)	How the problem would be overcome with more modern equipment	• Plosives (1)	• Pop shield (1) • Low pass filter (1) • Zoom in and trim (1) • waveform/apply fade (1)	• Distortion (1)	• Turn down gain (1) • Compression (1) • Use pad on mic (1)	• Wide dynamic range (1)	• Compression (1) • Volume automation (1)	• Limited frequency response (1)	• Condenser mic (1) • EQ (1)
	Problem (any two of the following)		How the problem would be overcome with more modern equipment									
	• Plosives (1)		• Pop shield (1) • Low pass filter (1) • Zoom in and trim (1) • waveform/apply fade (1)									
	• Distortion (1)		• Turn down gain (1) • Compression (1) • Use pad on mic (1)									
	• Wide dynamic range (1)		• Compression (1) • Volume automation (1)									
• Limited frequency response (1)	• Condenser mic (1) • EQ (1)											

Laura Mvula: *Green Garden*

Question number	Answer	Mark
2(a)(i)	Any one of: - identical repeats (1) - no variation in rhythm (1) - no variation in accents/velocity (1).	(1)

Question number	Answer	Mark
2(a)(ii)	Any one of: - place loop points at zero-crossing (1) - apply cross-fade (1).	(1)

Question number	Answer	Mark
2(b)	Any one of: - lead vocals (1) - bass (1).	(1)

Question number	Answer	Mark
2(c)	Low.	(1)

Question number	Answer	Mark
2(d)	Any one of: - harmoniser (1) - automatic pitch correction (1) - vocoder (1).	(1)

Question number	Answer	Mark
2(e)	Any three of: - lead vocals panned centrally (1) - when double tracked vocals are panned in opposition the backing harmonies are panned centrally (1) - some of the harmoniser backing vocals are central/some have panning automation/auto-panner (1) 'Dance in my garden, like we used to' double tracked vocals are panned in opposition (1) - symmetry in left/right placement of vocal parts (1) - more vocal layers as the song progresses, filling more of the stereo spectrum (1). Accept other reasonable responses.	(3)

Question number	Answer	Mark
2(f)	Any two of: • drums/bass drop out (1) • clapping added (1) • repeated vocal hook used (1) • ambient samples/recordings/sounds of a garden/outside (1) • talking at low volume (1) • piano/synth with lots of reverb introduced (1) • increased delay wet level on vocals 'take me outside' (1). Accept other reasonable responses.	(2)

Earth, Wind & Fire (with The Emotions): *Boogie Wonderland*

Question number	Answer	Mark
3(a)	Any two of: • use cardioid mics (1) • close mic (1) • use screens/gobos/acoustic absorption (1) • use different rooms to separate the performers/amplifiers (1) • use headphones (1) • move performers further apart (1) • DI the bass (1). Accept other reasonable responses.	(2)

Question number	Answer	Mark
3(b)	One mark is awarded for each point (AO3 – maximum 2) with a further mark for an explanation of the point (AO4 – maximum 2). Answers might include: • first section: female only vocals (1) provides contrast with the second section which has male and female vocals (1) • second section: male vocals at the start of the phrase and additional female vocals at the end of phrases (1) gives a thicker texture (1) • first section: vocals panned across the stereo spectrum (1) provides width/full sound/clarity of individual voices (1) • second section: vocals at the start of the phrase panned centrally (1) to add contrast with vocals panned wide at end of phrase (1) • both sections: Female vocals have more reverb than the male vocals (1) to give a fuller/bigger/blurred sound (1). Accept other reasonable responses.	(4)

Question number	Answer	Mark
3(c)	One mark is awarded for each point to a maximum of two marks, with a further mark for an explanation of each point, to a maximum of four marks. Answers might include: • wide panning (1) used to separate like parts, e.g. string parts (1) • using EQ (1) to reduce frequency masking/thin out instruments (1) • balancing vocals on top of the mix (1) so they are clearly audible at all times (1) • limited use of reverb/delay (1) to avoid blurring of instruments (1) • compression (1) used to make balance more consistent. (1) • horn and string parts are relatively low in level (1) so they don't overpower the mix (1). Accept other reasonable responses.	(4)

Alanis Morissette: *Ironic*

Question number	Answer	Mark
4(a)	Chorus.	(1)

Question number	Answer	Mark
4(b)	Any three of: • rhythm is quantised (1) • little velocity variation (1) • drums are looped (1) • individual hits are 'electronic'/heavily processed (1) • hits are identical (1). Accept other reasonable responses.	(3)

Question number	Answer	Mark
4(c)	Answers might include: • greater frequency response (1) • greater dynamic range/signal to noise ratio/no hiss (1) • no bleed across tracks (1) • no motor based problems, e.g. wow/flutter (1) • syncing with other equipment is more reliable (1) • basic copy/paste (non-linear) editing possible (1) • longer recording times/cheaper media cost/media more compact (1) • modular format/chain machines together to add more tracks (1). Accept other reasonable responses.	(4)

Question number	Answer	Mark
4(d)	AO3 (3 marks)/AO4 (3 marks) One mark is awarded for each point (AO3 – maximum 3) with a further mark for an explanation of the point (AO4 – maximum 3). Answers might include: • verse: vocals and acoustic guitar panned slightly right/slightly left (1) for symmetry and extra width (1) • chorus: vocals are panned centrally (1) as the distorted guitars fill the stereo spectrum (1) • verse: short room reverb on vocals (1) to give a sense of space but also intimacy (1) • chorus: little/no reverb (1) for a raw/emotional sound, reflecting the lyrics (1) • verse: vocals have a wide dynamic range in the verse (1) which gives a sense of fragility (1) • chorus: vocals are heavily compressed (1) as the delivery is louder and the level needs to be more consistent to sit above the mix (1) • verse: there are more low mids in the verse (1) giving a closer feel (1) • Chorus: the vocals are thinner (1) giving a more aggressive/less intimate sound (1) • verse: the vocals have just one layer (1) representing fragility/simplicity/allowing the vocals to expand (1) • chorus: there are vocal harmonies (1) to give more depth/harmonic interest/bigger vocal sound (1). Accept other reasonable responses.	(6)

Nina Simone: *Feeling Good* (Album version)

Muse: *Feeling Good*

Question number	Indicative content
5	AO3 (8 marks)/AO4 (8 marks) Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. Responses that demonstrate only AO3 without any AO4 should be awarded marks as follows: • Level 1 AO3 performance: 1–2 marks • Level 2 AO3 performance: 3–4 marks • Level 3 AO3 performance: 5–6 marks • Level 4 AO3 performance: 7–8 marks Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: AO3 Capture – Nina Simone: • recorded on analogue tape • lacking high frequencies • saturation present • tape hiss present • single layer of vocals • unwanted background noise audible in intro. Capture – Muse: • Digital equipment • little hiss/unwanted noise (although it is present in places) • more HF and LF content • more channels available • single layer of vocals. Instrumentation – Nina Simone: • Acoustic instruments only • orchestral instruments – strings/horns • drums • piano • vocals including scat. Instrumentation – Muse: • Electric piano • electric guitar • electric bass • strings and double bass • drums. Dynamics processing – Nina Simone: • wide dynamic range • relying largely on compression through tape saturation.

Question number	Indicative content
5 (contd.)	Dynamics processing – Muse: • narrower dynamic range • vocals have lots compression • use of mix compression/multi-band/brickwall limiter. Effects – Nina Simone: • reverb on vocals • natural reverb on backing track. Effects – Muse: • distortion on guitars/bass/electric piano • ‘telephone’ effect/restricted frequency response used on vocals in breakdown. AO4 • Less noise/hiss on the Muse version as digital recording has a greater signal to noise ratio than analogue tape. • As electric instruments are used in the Muse version they could have been recorded using DI, minimising unwanted noise, e.g. electric piano. • There is far more high frequency and low frequency content in the Muse version as it makes use of digital recording. • More channels/microphones/tracks available for the Muse recording, giving greater clarity of instruments. • Neither versions have backing vocals/stacks, which gives an intimate sound and connection with the listener. • Distorted guitars in the Muse version fill the stereo field giving a big sound, appropriate to the rock style. • Nina Simone’s version uses instruments that are appropriate to the jazz/R’nB style. • The Muse version has strings and double bass, which retains a further connection to the Nina Simone version. • Nina Simone’s version has a wide dynamic as heavy compression was not widely used at this stage in music production, and also the wide dynamic adds to the impact and emotion of the track. • Muse’s version has a narrow dynamic range as heavy compression applied on the individual parts and master give a consistent level, which is more common in modern recordings. • The vocals are heavily compressed in the Muse version to the extent that the breath noises are as loud the lyrics, giving a sense of intimacy. • The only effect added to the Nina Simone version is reverb, which retains the natural feel in the recording, and is typical for a recording in this style. • The Muse version has distortion applied to the guitars, bass and electric piano, which is stylistically appropriate and helps create an aggressive sound. • The vocal in the Muse version has a ‘telephone’ effect in the breakdown created through distortion and EQ, giving a lo-fi sound. • EQ is used with more precision in the Muse version to reduce frequency masking, which is possible with modern technology.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	• Demonstrates and applies limited knowledge and understanding of production techniques used, some of which may be inaccurate or irrelevant (AO3). • Gives limited analysis and deconstruction of production techniques used, making limited comparisons between the two recordings and/or little attempt at chains of reasoning (AO4).
Level 2	5–8	• Demonstrates and applies some knowledge and understanding of production techniques used, which is occasionally relevant but may include some inaccuracies (AO3). • Gives some analysis and deconstruction of production techniques used, making some comparisons between the two recordings and/or simplistic chains of reasoning (AO4).
Level 3	9–12	• Demonstrates and applies clear knowledge and understanding of production techniques used, which is mostly relevant and accurate (AO3). • Gives clear analysis and deconstruction of production techniques used, making clear comparisons between the two recordings and competent chains of reasoning (AO4).
Level 4	13–16	• Demonstrates and applies detailed knowledge and understanding of production techniques used, which is relevant and accurate throughout (AO3). • Gives detailed and accurate analysis and deconstruction of production techniques used, making detailed comparisons between the two recordings and logical chains of reasoning (AO4).

Write your name here

Surname

Other names

Pearson Edexcel
Level 3 GCE

Centre Number

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Candidate Number

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Music Technology

Advanced Subsidiary

Component 4: Producing and analysing

Sample assessment material for first teaching
September 2017

Time: 1 hour 45 minutes (plus 10 minutes setting up time)

Paper Reference

8MT0/04

You must have: Figure 2 for Question 6 (enclosed), audio recording containing component audio files, stereo digital audio file format for your finished tasks, headphones or monitor speakers, Digital Audio Workstation (DAW)

Total Marks

Setting up time

- Open a new project in your DAW using 16 bit/44.1kHz sample rate.
- Save the project as '**comp4_your candidate number**' (e.g. **comp4_1234**) in the folder designated by your centre.
- Set the metronome to **120 bpm**.
- Import "guitar.wav" to a new track in your DAW, aligned with the beginning of bar 1.
- Ensure that the guitar is audible and plays in time with the metronome. The guitar begins during the third beat of bar 6.
- You must not open the paper until instructed to do so by the invigilator.

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Save your audio files for Questions 1, 3, 4 and 5 within the 1 hour 45 minutes examination time.
- You must ensure that the left and right earpieces of your headphones are worn correctly.
- Access to a calculator or calculator software is not permitted.
- Access to the internet or local network is not permitted.

Information

- The total mark for this paper is 84.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Pearson

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Question 1 is about the electric guitar part.

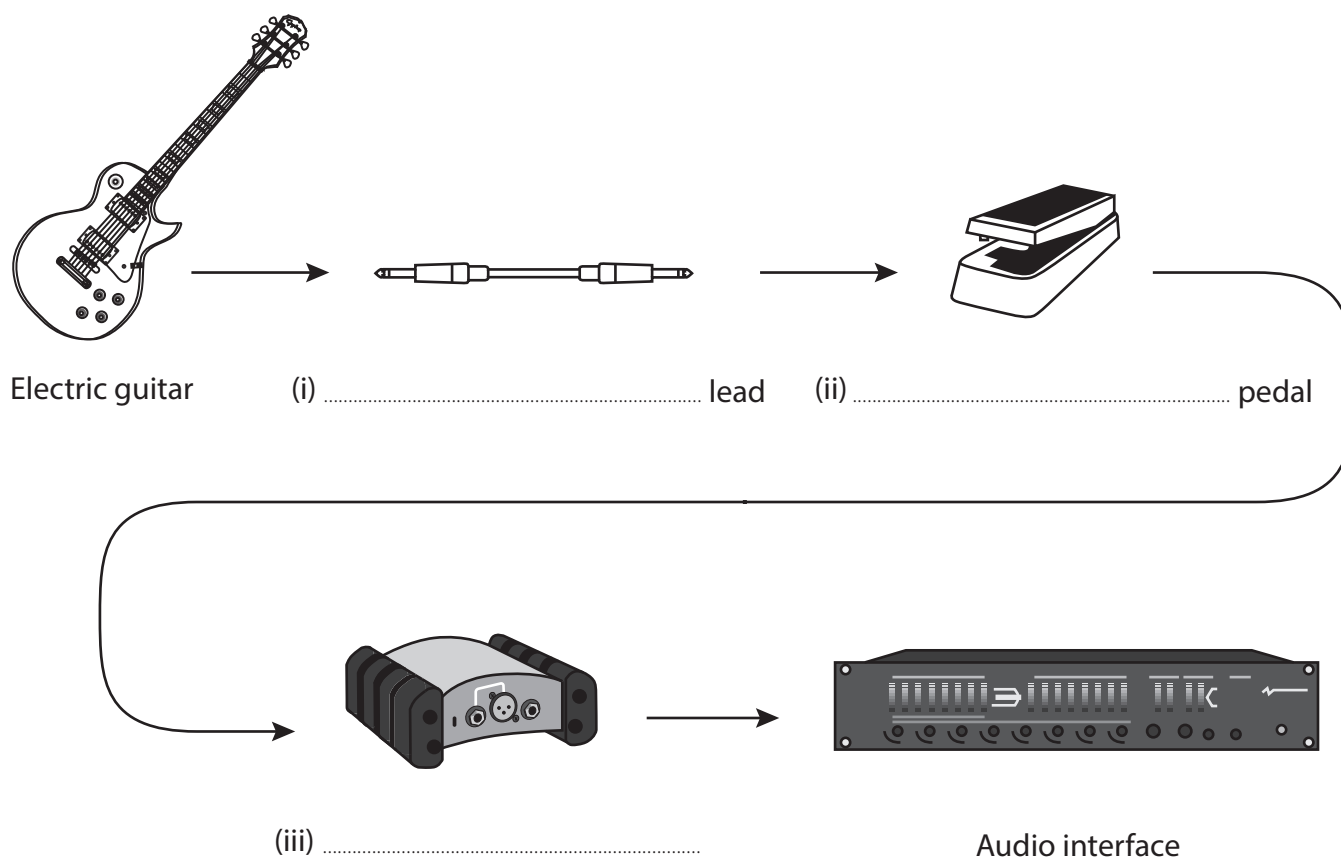
- 1 Import “guitar.wav” to a new track in your DAW. The beginning of this audio track should be aligned with the start of bar 1. The guitar begins during the third beat of bar 6.

(a) The electric guitar part was recorded using DI. State what DI stands for.

(1)

(b) Label the diagram below to show how this guitar part was recorded.

(3)



(c) Insert a plug-in to make the electric guitar sound as if it was recorded through an amplifier with a clean sound in bars 6–22.

(2)

(d) Insert a plug-in to make the electric guitar sound as if it was recorded through an amplifier with heavy distortion from bar 23 to the end.

(2)

- (e) At the end of the song, fade the electric guitar so that any hiss is not intrusive and the electric guitar still appears to fade naturally.

(3)

Bounce/export the completed guitar part as a single 16 bit/44.1kHz stereo.wav file to the designated folder on your computer.

Name it 'q1_ your candidate number' (e.g. q1_1234).

- (f) Describe **one** advantage of having a guitar part recorded using DI instead of a recorded mic'ed amplifier.

(2)

.....

.....

.....

.....

- (g) (i) A gate was applied to most of this recording. State what a gate does.

(1)

.....

- (ii) Explain why the gate was bypassed from bar 34 onwards.

(2)

.....

.....

.....

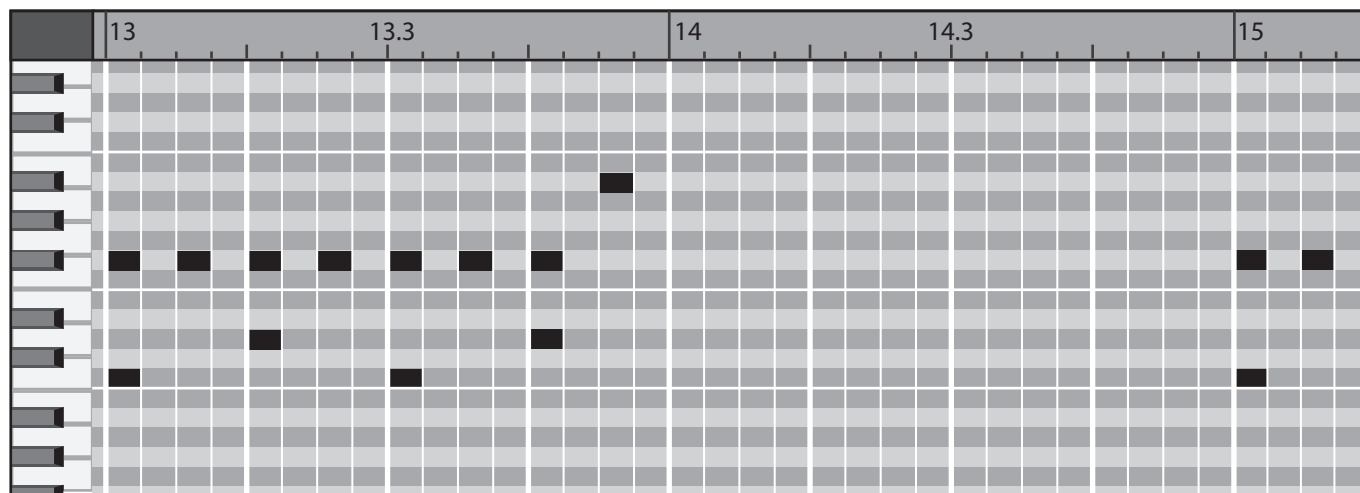
.....

(Total for Question 1 = 16 marks)

Question 2 is about the drum part.

- 2 Import "drums.wav" to a new track in your DAW. The beginning of this audio track should be aligned with the start of bar 1. The drums begin at the beginning of bar 2.

On the piano roll editor below, complete the drum part in bar 14.



(Total for Question 2 = 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Question 3 is about the bass part.

- 3** Import the MIDI file “bass.mid” to a new track in your DAW. Align the part so that the bass begins playing at the start of bar 3.

Import “bass example.wav” to a new audio track in your music production software. This file illustrates how bar 3 of the bass should sound. You should not use this audio in your final mix.

- (a) In the table below, identify the velocity of the first two notes in bar 6.

Position	Velocity
6:1:1:1	(1)
6:1:3:1	(1)

- (b) Identify the lowest velocity in the bass part.

(1)

- (c) (i) State what quantise does.

(1)

- (ii) Referring to the position numbers in bar 3, explain how you can tell this performance is quantised.

(1)

- (d) Choose a bass guitar sound that is similar to “bass example”. Ensure that the octave matches the example. (2)
- (e) In bars 27–30, the bass part has been transposed incorrectly. Correct the transposition. (3)
- (f) Bars 15–18 are played out of time. Correct the timing to match the rhythm of the rest of the bass part. (3)

Bounce/export the completed bass guitar part as a single 16 bit/44.1kHz stereo.wav file to the designated folder on your computer.

Name it ‘q3_ your candidate number’ (e.g. q3_1234).

- (g) Listen to “bass example.wav”. Identify the frequency range (in Hz) in which the bass part has the greatest amplitude. (2)

(Total for Question 3 = 15 marks)

Question 4 is about the vocal part.

4 Import “vocal.wav” to a new track in your DAW. This track is a complete vocal part. Ensure that the beginning of this audio track is aligned with the start of bar 1. The vocal begins in bar 7.

(a) The recording has a lot of unwanted noise from headphone spill.

(i) Identify **two** unwanted noises in bars 4–6.

(2)

1

2

(ii) State how the headphone spill could be prevented during recording.

(1)

.....

(b) Remove the unwanted noise from the vocal part.

(3)

Bounce/export the completed vocal part as a single 16 bit/44.1kHz stereo.wav file to the designated folder on your computer.

Name it ‘q4_ your candidate number’ (e.g. q4_1234).

- (c) The vocal was recorded with a condenser microphone using the switch settings shown in Figure 1. Identify the three switches. Explain why the settings have been selected for this recording.

	Identify the switch	Explain why this setting has been selected for this recording
(i)	 (1)	 (2)
(ii)	 (1)	 (2)
(iii)	 (1)	 (2)

(i)

(ii)

(iii)



Figure 1

(Total for Question 4 = 15 marks)

5 You should now have the following tracks in your DAW: drums, guitar, bass and vocal.

Follow the instructions below to produce a final stereo mix.

(a) Apply automated panning to the vocal part.

- Only the phrase “seen enough” in bars 21–23 should be affected; all other bars should be panned to the centre.
- The first repeat starting in bar 21 should be panned hard left.
- The second repeat starting in bar 22 should be panned hard right.

(3)

(b) Compress the lead vocal.

- Ensure that all parts of the vocal can be heard above the other parts.
- Ensure that the dynamics of the performance are level throughout and do not jump out of the mix.

(3)

(c) The EQ of the vocal in bars 15–19 is different to the rest of the vocal. EQ bars 15–19 so that the EQ is consistent through out the vocal.

(3)

(d) Apply reverb to the four parts to give a sense of ambience across the mix.

(3)

(e) Balance the mix.

(3)

(f) Produce a final stereo mix.

- Ensure that the mix output is at as high a level as possible.
- It should be free from distortion.
- Do not limit or compress the mix output.
- Ensure that the beginning and end are not cut off.
- Ensure that silences at the beginning and end do not exceed one second.

(3)

Bounce/export the completed mix part as a single 16 bit/44.1kHz stereo.wav file to the designated folder on your computer.

Name it ‘q5_ your candidate number’ (e.g. q5_1234).

(Total for Question 5 = 18 marks)

TOTAL FOR SECTION A = 68 MARKS

SECTION B

Answer Question 6. Write your answer in the space provided.

- 6** Figure 2 (refer to Figure 2) is a picture of a microphone placement on an acoustic guitar. Evaluate the studio technique used.

(16)

(Total for Question 6 = 16 marks)

TOTAL FOR SECTION B = 16 MARKS

TOTAL FOR PAPER = 84 MARKS

Pearson Edexcel Level 3 GCE

Music Technology

Advanced Subsidiary

Component 4: Producing and analysing

Sample assessment material for first teaching
September 2017

Figure 2 for Question 6

Paper Reference

8MT0/04

Do not return Figure 2 with the question paper.

Turn over ►

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Figure 2

Component 4: Producing and analysing – mark scheme

Question number	Answer	Mark
1(a)	Direct injection.	(1)

Question number	Answer	Mark
1(b)	(i) jack (1) (ii) wah (1) (iii) DI box (1).	(3)

Question number	Answer	Mark								
1(c)	'q1 full marks' shows a clean guitar amp simulator for full marks.	(2)								
	<table><tr><th>Mark</th><th>Clean guitar amp plug-in</th></tr><tr><td>2</td><td>Musically appropriate clean guitar amp simulator in bars 6–22.</td></tr><tr><td>1</td><td>Some change of tone in bars 6–22 but: Gain too high OR Tone too bright or harsh without the warmth of a cabinet OR A glitch between the distorted and clean sound is audible OR Other bars affected by the clean tone</td></tr><tr><td>0</td><td>No evidence of clean amp simulator</td></tr></table>		Mark	Clean guitar amp plug-in	2	Musically appropriate clean guitar amp simulator in bars 6–22.	1	Some change of tone in bars 6–22 but: Gain too high OR Tone too bright or harsh without the warmth of a cabinet OR A glitch between the distorted and clean sound is audible OR Other bars affected by the clean tone	0	No evidence of clean amp simulator
	Mark		Clean guitar amp plug-in							
	2		Musically appropriate clean guitar amp simulator in bars 6–22.							
	1		Some change of tone in bars 6–22 but: Gain too high OR Tone too bright or harsh without the warmth of a cabinet OR A glitch between the distorted and clean sound is audible OR Other bars affected by the clean tone							
0	No evidence of clean amp simulator									

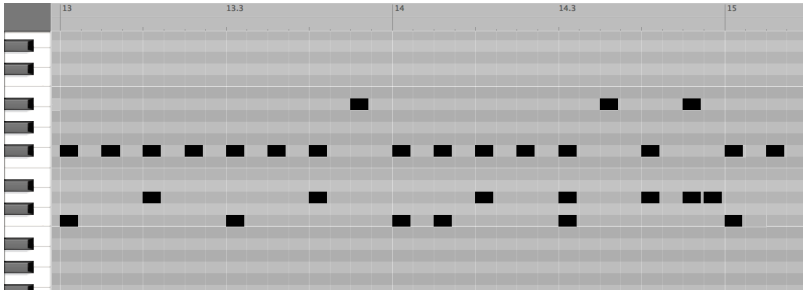
Question number	Answer	Mark
1(d)	'q1 full marks' shows a distorted guitar amp simulator for full marks.	(2)
	Mark Distorted guitar amp plug-in	
	2 Musically appropriate distorted guitar amp simulator in bars 23–34.	
	1 Some distortion added in bars 23–34 but: Gain not high enough OR Tone too bright or harsh without the warmth of a cabinet OR A glitch between the distorted and clean sound is audible OR Other bars affected by distortion	
	0 No evidence of distortion or amp simulator	

Question number	Answer	Mark
1(e)	'q1 full marks' shows a fade for full marks.	(3)
	Mark Adding a fade at the end	
	3 A natural sounding fade has been used which fades slowly and consistently, and very little hiss may be present.	
	2 A natural sounding fade has been used which fades slowly, but a little intrusive hiss is present at the end.	
	1 An uneven/abrupt fade has been used with some intrusive hiss present, or end cuts off.	
	0 No fade.	

Question number	Answer	Mark
1(f)	Change the guitar amp tone/settings (1) during mixing (1).	(2)

Question number	Answer	Mark
1(g)(i)	Cuts out noise.	(1)

Question number	Answer	Mark
1(g)(ii)	Any valid description of: - the guitar note fades (1) - the gate would cut off the long guitar note (1).	(2)

Question number	Answer	Mark
2	1 mark for each correct rhythm: • Kick on C1 • Snare on D1 • Closed hi-hat on F# • Open hi-hat on A# 	(4)

Question number	Answer		Mark
3(a)			(2)
	Position	Velocity	
	6:1:1:1	88 (1)	
	6:1:3:1	86 (1)	

Question number	Answer	Mark
3(b)	56	(1)

Question number	Answer	Mark
3(c)(i)	Corrects timing/moves notes to the nearest note value.	(1)

Question number	Answer	Mark
3(c)(ii)	The final number is 1.	(1)

Question number	Answer	Mark
3(d)	'q3 full marks' shows the correct timbre and octave for full marks. Clean bass guitar sound (1) Correct octave throughout (1).	(2)

Question number	Answer	Mark		
3(e)	'q3 full marks' shows the correct transposition for full marks.	(3)		
			Mark	Correction of transposition of the bass part
			3	Correct transposition in bars 27–30 and no other bars are affected.
			2	Partially correct transposition in bars 27–30 and no other bars are affected.
			1	Unsuccessful attempt to correct the pitch error, e.g. the pitch has been changed to incorrect notes or there are additional/missing notes or timing errors.
			0	no change of the pitches

Question number	Answer	Mark										
3(f)	'q3 full marks' shows the correct rhythm quantisation and editing for full marks.	(3)										
	<table><tr><th>Mark</th><th>Correction of rhythm of the bass part</th></tr><tr><td>3</td><td>All notes are quantised to 8s. Bar 16:2 plays as two quavers.</td></tr><tr><td>2</td><td>All notes are quantised to 8s but bar 16:2 plays as a chord.</td></tr><tr><td>1</td><td>There is some change to the rhythm but it's not quantised to 8s.</td></tr><tr><td>0</td><td>No change of rhythm.</td></tr></table>	Mark	Correction of rhythm of the bass part	3	All notes are quantised to 8s. Bar 16:2 plays as two quavers.	2	All notes are quantised to 8s but bar 16:2 plays as a chord.	1	There is some change to the rhythm but it's not quantised to 8s.	0	No change of rhythm.	
Mark	Correction of rhythm of the bass part											
3	All notes are quantised to 8s. Bar 16:2 plays as two quavers.											
2	All notes are quantised to 8s but bar 16:2 plays as a chord.											
1	There is some change to the rhythm but it's not quantised to 8s.											
0	No change of rhythm.											

Question number	Answer	Mark
3(g)	Range of: 50Hz (accept 30Hz-100Hz) (1) to 200Hz (accept 200Hz-400Hz) (1).	(2)

Question number	Answer	Mark
4(a)(i)	Feedback (1) Metronome (1)	(2)

Question number	Answer	Mark
4(a)(ii)	Turn down headphones/make sure performer is wearing headphones firmly over both ears.	(1)

Question number	Answer	Mark										
4(b)	“q4 full marks.wav” shows noise removal worth full marks. A gate would not work. Trimming is required. In particular, check: • vocal entry at 0:09 • vocal entry at 0:25 • vocal end at 1:07 <table><tr><th>Mark</th><th>Removing unwanted noise from the vocal</th></tr><tr><td>3</td><td>The vocal is intact with no feedback, metronome or clicks present.</td></tr><tr><td>2</td><td>One or two parts of vocal have been cut by less than a semiquaver OR there is less than a semiquaver of noise left in OR clicks at the edit points</td></tr><tr><td>1</td><td>There is more than a quaver of the vocal cut out OR There is more than a quaver of noise left in</td></tr><tr><td>0</td><td>No attempt at cutting out any noise/completely silent track</td></tr></table> Note: If vocal is not soloed or effects added then maximum 1. If metronome present then maximum 1.	Mark	Removing unwanted noise from the vocal	3	The vocal is intact with no feedback, metronome or clicks present.	2	One or two parts of vocal have been cut by less than a semiquaver OR there is less than a semiquaver of noise left in OR clicks at the edit points	1	There is more than a quaver of the vocal cut out OR There is more than a quaver of noise left in	0	No attempt at cutting out any noise/completely silent track	(3)
Mark	Removing unwanted noise from the vocal											
3	The vocal is intact with no feedback, metronome or clicks present.											
2	One or two parts of vocal have been cut by less than a semiquaver OR there is less than a semiquaver of noise left in OR clicks at the edit points											
1	There is more than a quaver of the vocal cut out OR There is more than a quaver of noise left in											
0	No attempt at cutting out any noise/completely silent track											

Question number	Answer			Mark
4(c)		Identify the switch	Explain why this setting has been selected for this recording	(9)
	(i)	Polar response/pick-up pattern/polar pattern (1) Accept 'cardioid'	Reduces ambience/reverb (1) Reduces noise/spill (1)	
	(ii)	High pass filter/low cut filter/rumble filter (1)	Removes rumble (1) Reduces proximity effect (1)	
	(iii)	Pad/attenuator/sensitivity (1)	Vocals not loud/not high SPL/mic needs to be at max sensitivity (1) Achieve good gain structure (1) Increases signal to noise ratio (1)	

Note for Question 5: if candidates apply dynamics/EQ/FX/stereo not asked for, they cannot gain full credit in (a), (b), (c) and (d).

'q5 full marks.wav' shows full marks for Question 5.

'q5 unmixed.wav' shows Questions (a) to (d) not completed.

Question number	Answer	Mark										
5(a)	<table><tr><th>Mark</th><th>Management and control of the vocal panning automation</th></tr><tr><td>3</td><td>Panning automation with the vocal panning from left to right as directed</td></tr><tr><td>2</td><td>Panning automation with the vocal panning across the stereo field in some way but not as directed</td></tr><tr><td>1</td><td>Vocal panned in a single position other than centre OR The vocal does not reset to centre OR Erratic panning OR Other bars affected by panning</td></tr><tr><td>0</td><td>There is no audible panning automation in bars 21–23 OR No mix present on audio recording.</td></tr></table>	Mark	Management and control of the vocal panning automation	3	Panning automation with the vocal panning from left to right as directed	2	Panning automation with the vocal panning across the stereo field in some way but not as directed	1	Vocal panned in a single position other than centre OR The vocal does not reset to centre OR Erratic panning OR Other bars affected by panning	0	There is no audible panning automation in bars 21–23 OR No mix present on audio recording.	(3)
	Mark	Management and control of the vocal panning automation										
	3	Panning automation with the vocal panning from left to right as directed										
	2	Panning automation with the vocal panning across the stereo field in some way but not as directed										
	1	Vocal panned in a single position other than centre OR The vocal does not reset to centre OR Erratic panning OR Other bars affected by panning										
	0	There is no audible panning automation in bars 21–23 OR No mix present on audio recording.										

Question number	Answer	Mark												
5(b)	<table><tr><th>Mark</th><th>Management and control of the vocal dynamics</th></tr><tr><td></td><td>This is best assessed in the chorus at 0:42 where there is a wide dynamic difference between each phrase.</td></tr><tr><td>3</td><td>All of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range is = "q5 full marks".</td></tr><tr><td>2</td><td>Most of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range > "q5 full marks" indicating the threshold is not set low enough or the ratio is not high enough so some quiet passages are still quiet.</td></tr><tr><td>1</td><td>The vocals have audible compression > "q5 unmixed" and the dynamic range is reduced, however some parts of the vocal are partially masked/uneven level OR Clearly audible volume automation</td></tr><tr><td>0</td><td>No compression can be identified on the vocal. OR No mix present on audio recording.</td></tr></table>	Mark	Management and control of the vocal dynamics		This is best assessed in the chorus at 0:42 where there is a wide dynamic difference between each phrase.	3	All of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range is = "q5 full marks".	2	Most of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range > "q5 full marks" indicating the threshold is not set low enough or the ratio is not high enough so some quiet passages are still quiet.	1	The vocals have audible compression > "q5 unmixed" and the dynamic range is reduced, however some parts of the vocal are partially masked/uneven level OR Clearly audible volume automation	0	No compression can be identified on the vocal. OR No mix present on audio recording.	(3)
	Mark	Management and control of the vocal dynamics												
		This is best assessed in the chorus at 0:42 where there is a wide dynamic difference between each phrase.												
	3	All of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range is = "q5 full marks".												
	2	Most of the vocal is clearly audible, especially in the chorus. Overall, the dynamic range > "q5 full marks" indicating the threshold is not set low enough or the ratio is not high enough so some quiet passages are still quiet.												
	1	The vocals have audible compression > "q5 unmixed" and the dynamic range is reduced, however some parts of the vocal are partially masked/uneven level OR Clearly audible volume automation												
0	No compression can be identified on the vocal. OR No mix present on audio recording.													

Question number	Answer		Mark
5(c)	Mark	Management and control of the vocal EQ	(3)
		This is assessed in the second verse at 0:26–0:34	
	3	The vocal in bars 15–19 is of similar brightness to the rest of the vocal, without extreme frequency exaggeration or restriction.	
	2	The vocal is obviously brighter, but not the same as the rest of the vocal OR There is an audible glitch where the EQ changes.	
	1	EQ applied with extreme settings.	
	0	No UM/HF boost EQ can be identified on vocal.	
		Maximum 1 if EQ affects other tracks.	

Question number	Answer		Mark
5(d)	Mark	Application of reverb	(3)
	3	Reverb is clearly audible on all tracks. The guitar has the most reverb; the bass has the least. Overall reverb $\leq$ "q5 full marks".	
	2	Overall reverb is slightly $>$ than "q5 full marks" OR Use of reverb with some misjudgements OR Reverb bypasses in some parts of the track. For example, dry vocal during the EQed second verse.	
	1	Serious misjudgement on 1 track or more AND/OR Wrong effect added on any track.	
	0	No evidence of reverb being applied to any track OR No mix present on audio recording.	

Question number	Answer		Mark
5(e)	Mark	Balance and blend	(3)
	3	Balanced and blended across all parts of the mix. Vocals sit on top of mix.	
	2	Most tracks are balanced with some masking. A few misjudgements, e.g. guitar louder than the vocal; or drums quieter than guitar.	
	1	Balanced so that one track is barely audible.	
	0	No mix on audio recording OR Not all tracks present/additional tracks.	

Question number	Answer		Mark
5(f)	Mark	Presentation of mix	(3)
	3	Beginning and end of mix does not cut out music or cymbal tail. The beginning should have 0–1 seconds of silence before the music starts. The mix output should be near normalised with no distortion.	
	2	Beginning and end of mix does not cut out music or delay tail. The beginning has a silence of greater than 1 second. The end has greater than 5 seconds of silence OR The mix output is too low OR is compressed OR there is some slight distortion OR slightly cut cymbal tail > “q5 unmixed”	
	1	Obviously chopped start or ending OR The mix output is unacceptably low or too high (distorted) OR Excessive use of mix compression causes pumping OR metronome has not been turned off OR Any part is noticeably out of sync/out of tune IGNORE previously assessed work, e.g. bass timing	
	0	No mix present on audio recording.	

Question number	Indicative content
6	AO3 (4 marks)/AO4 (12 marks) Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. Responses that demonstrate only AO3 without any AO4 should be awarded marks as follows: • Level 1 AO3 performance: 1 mark • Level 2 AO3 performance: 2 marks • Level 3 AO3 performance: 3 marks • Level 4 AO3 performance: 4 marks Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: AO3 • Small diaphragm condenser. • About 20cm away. Distance is still close-mic, but not that close. • Mic pointing on axis. • Mic points towards the sound hole. • Headphone monitoring. • Background noise should be kept to a minimum. AO4 • Small diaphragm condensers capture a brighter tone. Would require less HF EQ boost when mixing. Would bring the guitar forward in the mix. • Distance. Some reverb would be picked up at this distance. This distance captures the whole body of the instrument. If mics closer, the microphones would pick up small areas of the guitar for a less natural sound. If mics further away more reverb would be picked up, especially because the floor is a reflective surface. The natural room acoustic could be picked up therefore not requiring reverb to be added during the mix, however the disadvantage would be that the reverb could not be removed once recorded. • Mic points at the sound hole. This would pick up boom from the sound hole. This would pick up a bassier tone. It is important to plan ahead to the mix – does the engineer want a bassy tone? This tone could interfere with the bass guitar in the mix. Instead of mic'ing up the sound hole, the engineer could mic up the 12th fret for less boom from the sound hole giving a cleaner tone with more room in the low and low mid frequencies for a bass guitar to sit in the mix. • Mics pointing on axis: Would increase boom from the sound hole. Could reduce the presence of high frequencies giving a slightly duller sound; could be corrected by pointing the mic on-axis. • Headphone monitoring to reduce headphone spill. This is especially important because the acoustic guitar is a quiet instrument. Ensure that the headphones aren't too loud. • The room is carpeted so reverb would be minimal. The glass window could cause some reflections.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	• Demonstrates limited knowledge and understanding of production techniques/technology used, some of which may be inaccurate or irrelevant (AO3). • Shows limited analysis and deconstruction of production techniques/technology used with unsuccessful attempts at chains of reasoning (AO4). • Makes limited evaluative and/or critical judgements about the production techniques/technology used (AO4). • Makes an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence (AO4).
Level 2	5–8	• Demonstrates knowledge and understanding of production techniques/technology used, which are occasionally relevant but may include some inaccuracies (AO3). • Shows some analysis and deconstruction of production techniques/technology used with simplistic chains of reasoning (AO4). • Makes some evaluative and/or critical judgements about the production techniques/technology used (AO4). • Comes to a conclusion partially supported by an unbalanced argument with limited coherence (AO4).
Level 3	9–12	• Demonstrates clear knowledge and understanding of production techniques/technology used, which are mostly relevant and accurate (AO3). • Shows clear analysis and deconstruction of production techniques/technology used with competent chains of reasoning (AO4). • Makes clear evaluative and critical judgements about the production techniques/technology used (AO4). • Comes to a conclusion generally supported by an argument that may be unbalanced or partially coherent (AO4).
Level 4	13–16	• Demonstrates detailed knowledge and understanding of production techniques/technology used, which are relevant and accurate (AO3). • Shows detailed and accurate analysis and deconstruction of production techniques/technology used, with logical chains of reasoning on occasion (AO4). • Makes detailed and valid evaluative and critical judgements about the production techniques/technology used (AO4). • Comes to a conclusion, largely supported by a balanced argument (AO4).

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